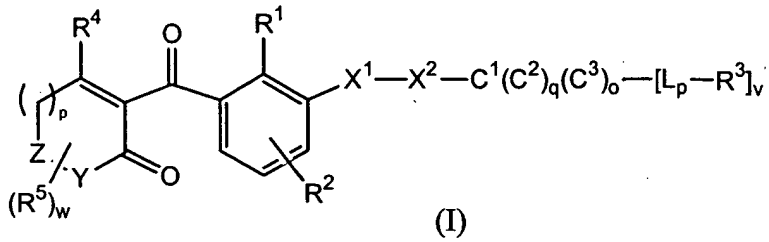
AMENDMENTS TO THE CLAIMS

This listing of claims will replace without prejudice all prior versions and listings of claims in the application.

Claim 1 (currently amended): A compound of the formula (I) or a salt thereof



(I)

in which

X^1 is a divalent unit selected from the group consisting of O, $S(O)_n$, NH, $N[L_P\text{-}R^3]$;

X^2 is a straight-chain or branched $(C_1\text{-}C_6)$-alkylene, $(C_2\text{-}C_6)$-alkenylene or $(C_2\text{-}C_6)$-alkynylene chain which is substituted by w halogen atoms ~~and by k radicals $[L_P\text{-}R^3]$~~;

$C^1(C^2)_q(C^3)_o$ is a mono-, bi- or tricyclic radical, where

e) the rings C^1, C^2 and C^3 are in each case a 3- to 8-membered, saturated or partially saturated ring selected from the group consisting of cycloalkyl, cycloalkenyl, oxiranyl and oxetanyl,

f) the rings C^1, C^2 and C^3 are in each case linked to each other via one or two joint atoms;

R^1 and R^2 independently of one another are hydrogen, mercapto, nitro, cyano, halogen, thiocyanato, (C_1-C_6)-alkyl-CO-O, (C_1-C_6)-alkyl-$S(O)_n$-O, (C_1-C_6)-alkyl-$S(O)_n$, di-(C_1-C_6)-alkyl-NH-SO_2, (C_1-C_6)-alkyl-SO_2-NH, (C_1-C_6)-alkyl-NH-CO, (C_1-C_6)-alkyl-SO_2-[(C_1-C_6)-alkyl]amino, (C_1-C_6)-alkyl-CO-((C_1-C_6)-alkyl)amino, 1,2,4-triazol-1-yl, (C_1-C_6)-alkyl-O-CH_2, (C_1-C_6)-alkyl-$S(O)_n$-CH_2, (C_1-C_6)-alkyl-NH-CH_2, [(C_1-C_6)-alkyl]$_2$N-CH_2, 1,2,4-triazol-1-yl-CH_2, or are (C_1-C_6)-alkyl-$(D)_p$, (C_2-C_6)-alkenyl-$(D)_p$, (C_2-C_6)-alkynyl-$(D)_p$, (C_3-C_9)-cycloalkyl-$(D)_p$, (C_3-C_9)-cycloalkenyl-$(D)_p$, (C_1-C_6)-alkyl-(C_3-C_9)-cycloalkyl-$(D)_p$ or (C_1-C_6)-alkyl-(C_3-C_9)-cycloalkenyl-$(D)_p$, each of which is substituted by v radicals selected from the group consisting of cyano, nitro and halogen;

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R^3 is hydrogen, hydroxyl, halogen, mercapto, amino, nitro, a carbon-containing radical or, if p in X^1 is zero, R^3 is oxo, NR^8, N-OR^8 or N-NR^8R^9;

D is oxygen or sulfur;

L is in each case straight-chain or branched A_p-[$C(R^6)_2$]$_w$-[A_p-$C(R^6)_2$]$_x$-A_p or A_p-M-A_p [[;]] with the proviso that 2 or 3 of the variable terms p, w and x shall not simultaneously be zero;

A is a divalent unit selected from the group consisting of O, $S(O)_n$, NH, N-(C_1-C_6)-alkyl, N-(C_2-C_6)-alkenyl and N-(C_2-C_6)-alkynyl;

M is (C_1-C_6)-alkylene, (C_2-C_6)-alkenylene or (C_2-C_6)-alkynylene, each of which is substituted by w radicals R^6;

R^4 is OR^7, (C_1-C_4)-alkylthio, halo-(C_1-C_4)-alkylthio, (C_1-C_4)-alkenylthio, halo-(C_2-C_4)-alkenylthio, (C_2-C_4)-alkynylthio, halo-(C_2-C_4)-alkynylthio, (C_2-C_4)-alkylsulfinyl, halo-(C_2-C_4)-alkylsulfinyl, (C_2-C_4)-alkenylsulfinyl, halo-(C_2-C_4)-alkenylsulfinyl, (C_2-C_4)-alkynylsulfinyl, halo-(C_2-C_4)-alkynylsulfinyl, (C_1-C_4)-alkylsulfonyl, halo-(C_1-C_4)-alkylsulfonyl, (C_2-C_4)-alkenylsulfonyl, halo-(C_2-C_4)-alkenylsulfonyl, (C_2-C_4)-alkynylsulfonyl, halo-(C_2-C_4)-alkynylsulfonyl, cyano, cyanato, thiocyanato, halogen or phenylthio;

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R^5 is hydrogen, tetrahydropyran-3-yl, tetrahydropyran-4-yl, tetrahydrothiopyran-3-yl, (C_1-C_4)-alkyl, (C_3-C_8)-cycloalkyl, (C_1-C_4)-alkoxy, (C_1-C_4)-alkoxy-(C_1-C_4)-alkyl, (C_1-C_4)-alkylcarbonyl, (C_1-C_4)-alkoxycarbonyl, (C_1-C_4)-alkylthio, phenyl, the eight last-mentioned groups being substituted by v radicals selected from the group consisting of halogen, (C_1-C_4)-alkylthio and (C_1-C_4)-alkoxy, or two radicals R^5 bonded to a joint carbon atom form a chain selected from the group consisting of OCH_2CH_2O, $OCH_2CH_2CH_2O$, SCH_2CH_2S and $SCH_2CH_2CH_2S$, this group being substituted by w methyl groups, or
two radicals R^5 bonded to directly adjacent carbon atoms, together with the carbon atoms to which they are attached, form a 3- to 6-membered ring which is substituted by w radicals selected from the group consisting of halogen, (C_1-C_4)-alkyl, (C_1-C_4)-alkylthio and (C_1-C_4)-alkoxy;

R^6 is (C_1-C_4)-alkyl, halogen, cyano or nitro;

R^7 is hydrogen, (C_1-C_4)-alkyl, halo-(C_1-C_4)-alkyl, (C_1-C_4)-alkoxy-(C_1-C_4)-alkyl, formyl, (C_1-C_4)-alkylcarbonyl, (C_1-C_4)-alkoxycarbonyl, (C_1-C_4)-alkylaminocarbonyl, di-(C_1-C_4)-

alkylaminocarbonyl, (C_1-C_4)-alkylsulfonyl, halo-(C_1-C_4)-alkylsulfonyl, benzoyl or phenylsulfonyl, the two last-mentioned groups being substituted by v radicals selected from the group consisting of (C_1-C_4)-alkyl, halo-(C_1-C_4)-alkyl, (C_1-C_4)-alkoxy, halo-(C_1-C_4)-alkoxy, halogen, cyano and nitro;

R^8 is hydrogen, (C_1-C_4)-alkyl, (C_1-C_4)-alkoxy, (C_2-C_4)-alkenyl, (C_2-C_4)-alkynyl, (C_3-C_8)-cycloalkyl, aryl, aryl-(C_1-C_6)-alkyl, heteroaryl, heterocyclyl, halo-(C_1-C_4)-alkyl;

R^9 is hydrogen, (C_1-C_4)-alkyl, (C_2-C_4)-alkenyl, (C_2-C_4)-alkynyl, (C_3-C_9)-cycloalkyl, aryl, aryl-(C_1-C_6)-alkyl, heteroaryl, heterocyclyl, halo-(C_1-C_4)-alkyl, or, if R^8 and R^9 are bonded to one atom or to two directly adjacent atoms, they together with the atoms to which they are bonded form a saturated, partially or fully unsaturated five- to six-membered ring which contains p hetero atoms selected from the group consisting of oxygen, nitrogen and sulfur;

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Y is a divalent unit selected from the group consisting of O, S, N-H, N-(C_1-C_4)-alkyl, CHR^5 and $C(R^5)_2$;

Z is a divalent unit selected from the group consisting of O, S, SO, SO_2, N-H, N-(C_1-C_4)-alkyl, CHR^5 and $C(R^5)_2$;

m and n are each 0, 1 or 2;

o, p and q are each 0 or 1;

w and x are each 0, 1, 2, 3 or 4;

v is 0, 1, 2 or 3.

Claim 2 (original): A benzoylcyclohexanedione as claimed in claim 1, in which

X^1 is a divalent unit selected from the group consisting of O, S and NH;

R^1 is chlorine, bromine, fluorine, methyl, ethyl, cyano, nitro, halo-(C_1-C_2)-alkyl;

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R^2 is halogen, halo-(C_1-C_4)-alkyl, (C_1-C_4)-alkylsulfenyl, (C_1-C_4)-alkylsulfinyl, (C_1-C_4)-alkylsulfonyl or nitro;

R^5 is (C_1-C_4)-alkyl, (C_3-C_8)-cycloalkyl, (C_1-C_4)-alkoxy, (C_1-C_4)-alkoxy-(C_1-C_4)-alkyl, (C_1-C_4)-alkylcarbonyl, (C_1-C_4)-alkoxycarbonyl, (C_1-C_4)-alkylthio, phenyl, or two radicals R^5 bonded to a joint carbon atom form a chain selected from the group consisting of OCH_2CH_2O, $OCH_2CH_2CH_2O$, SCH_2CH_2S and $SCH_2CH_2CH_2S$, this group being substituted by w methyl groups, or

two radicals R^5 bonded to directly adjacent carbon atoms form a bond or, together with the carbon atoms to which they are attached, form a 3- to 6-membered ring which is substituted by w radicals selected from the group consisting of halogen, (C_1-C_4)-alkyl, (C_1-C_4)-alkylthio and (C_1-C_4)-alkoxy;

R^8 is hydrogen, (C_1-C_4)-alkyl, (C_1-C_4)-alkoxy, (C_2-C_4)-alkenyl, (C_2-C_4)-alkynyl, (C_3-C_8)-cycloalkyl, aryl, aryl-(C_1-C_6)-alkyl, halo-(C_1-C_4)-alkyl;

R^9 is hydrogen, (C_1-C_4)-alkyl, or, if R^8 and R^9 are bonded to one atom or to two directly adjacent atoms, they together with the atoms to which they are bonded form a saturated, partially or fully unsaturated five- to six-membered ring which contains p hetero atoms selected from the group consisting of oxygen, nitrogen and sulfur.

Claim 3 (currently amended): A benzoylcyclohexanedione as claimed in claim 1, in which

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X^2 is a straight-chain or branched (C_1-C_4)-alkylene, (C_2-C_4)-alkenylene or (C_2-C_4)-alkynylene chain, each of which is substituted by w halogen atoms;

R^3 is

a) hydrogen, hydroxyl, halogen, mercapto, amino, nitro, cyano, formyl,

b) phenyl, oxazolyl, furanyl or tetrahydropyrrolyl, each of which is substituted by w radicals selected from the group consisting of halogen, cyano, (C_1-C_4)-alkyl, halo-(C_1-C_4)-alkyl, (C_1-C_4)-alkoxy, halo-(C_1-C_4)-alkoxy, (C_1-C_4)-alkylthio, halo(C_1-C_4)-alkylthio and R^{10},

c) $(R^{11})(C_1-C_4)$-alkylamino, $(R^{11})_2$-amino, R^{11}-oxycarbonyl, R^{11}-carbonyl, R^{11}-carbonyloxy; (C_1-C_6)-alkyl, (C_2-C_6)-alkenyl, (C_2-C_6)-alkynyl, (C_1-C_6)-alkoxy-(C_1-C_6)-alkyl, (C_2-C_6)-alkynyloxy-(C_1-C_6)-alkyl, (C_3-C_9)-cycloalkyl, (C_3-C_9)-cyloalkenyl, (C_1-C_6)-alkoxy or (C_1-C_6)-alkylthio, each of which is substituted by v radicals selected from the group consisting of formyl, halogen, cyano, nitro, (C_1-C_4)-alkylamino, (C_1-C_4)-dialkylamino, (C_1-C_4)-alkoxycarbonyl, (C_1-C_4)-alkylcarbonyl, (C_1-C_4)-alkylcarbonyloxy, (C_1-C_4)-alkyl, (C_2-C_4)-alkenyl, (C_2-C_4)-alkynyl,

halo-(C_1-C_4)-alkyl, (C_1-C_4)-alkylthio, halo-(C_1-C_4)-alkylthio, (C_1-C_4)-alkoxy and halo-(C_1-C_4)-alkoxy;

d) a radical of the formula Va, Vb, Vc, Vd, Vj or Vp, or

e) if p is zero, then R^3 is oxo, NR^8, N-OR^8 or N-NR^8R^9;

R^7 is hydrogen, (C_1-C_4)-alkylsulfonyl, benzoyl or phenylsulfonyl, the two last-mentioned groups being substituted by v radicals selected from the group consisting of (C_1-C_2)-alkyl, halo-(C_1-C_2)-alkyl, (C_1-C_2)-alkoxy, halo-(C_1-C_2)-alkoxy, halogen, cyano and nitro, and

R^{11} is hydrogen, (C_1-C_4)-alkyl, (C_2-C_4)-alkenyl, (C_2-C_4)-alkynyl or (C_3-C_8)cycloalkyl.

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Claim 4 (original): A benzoylcyclohexanedione as claimed in claim 1, in which

X^1 is the divalent unit O;

R^4 is OR^7, (C_1-C_4)-alkylthio, (C_2-C_4)-alkenylthio, (C_1-C_4)-alkylsulfonyl, cyano, cyanato, thiocyanato, or else phenylthio which is substituted by v radicals selected from the group consisting of halogen, (C_1-C_2)-alkyl, (C_1-C_2)-alkoxy, halo-(C_1-C_2)alkyl, halo-(C_1-C_2)-alkoxy and nitro;

R^5 is hydrogen, (C_1-C_4)-alkyl, (C_3-C_8)-cycloalkyl, (C_1-C_4)-alkoxy, (C_1-C_4)-alkylthio, phenyl, or two radicals R^5 bonded to directly adjacent carbon atoms, together with the carbon atoms to which they are bonded, form a substituted 3- to 6-membered ring;

R^{12} is hydrogen, (C_1-C_4)-alkyl, (C_2-C_4)-alkenyl, or, if R^{11} and R^{12} are bonded to one atom or to two directly adjacent atoms, they together with the atoms to which they are bonded form a saturated, partially or fully unsaturated five- to six-membered ring which contains p hetero atoms selected from the group consisting of oxygen, nitrogen and sulfur;

Y is a divalent unit selected from the group consisting of CHR^5 and $C(R^5)_2$, and

Z is a divalent unit selected from the group consisting of O, S, SO_2, N-(C_1-C_4)alkyl, CHR^5 and $C(R^5)_2$.

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Claim 5 (original): A benzoylcyclohexanedione as claimed in claim 1, in which

R^2 is halogen, halo-(C_1-C_2)-alkyl or (C_1-C_2)-alkylsulfonyl;

R^5 is (C_1-C_4)-alkyl, (C_3-C_8)-cycloalkyl, (C_1-C_4)-alkoxy, (C_1-C_4)-alkylthio, phenyl, or two radicals R5 bonded to directly adjacent carbon atoms together with the carbon atoms to which they are attached form a substituted 3- to 6-membered ring;

R^7 is hydrogen, (C_1-C_4)-alkylsulfonyl, benzoyl or phenylsulfonyl, and

R^8 is hydrogen, methyl or ethyl, and

R^2 is in the 4-position of the phenyl ring.

Claim 6 (original): A benzoylcyclohexanedione as claimed in claim 1, in which

X^2 is a straight-chain or branched (C_1-C_4)-alkylene, (C_2-C_4)-alkenylene or (C_2-C_4)-alkynylene chain;

R^1 is chlorine, bromine, methyl, trifluoromethyl, cyano or nitro-;

R^2 is chlorine, bromine, methylsulfonyl, ethylsulfonyl, trifluoromethyl or nitro;

R^4 is OR^7, (C_1-C_4)-alkylthio, (C_2-C_4)-alkenylthio or phenylthio;

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R^5 is hydrogen, (C_1-C_4)-alkyl, or two radicals R^5 bonded to directly adjacent carbon atoms together with the carbon atoms to which they are attached form a substituted 3- to 6-membered ring;

A is a divalent unit selected from the group consisting of O, $S(O)_n$, NH and N-(C_1-C_6)-alkyl;

M is (C_1-C_6)-alkylene;

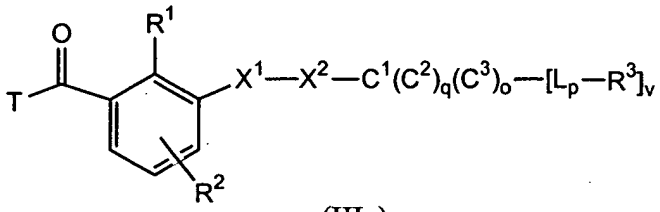
Y and Z independently of one another are a divalent unit selected from the group consisting of CHR^5 and $C(R^5)_2$.

Claim 7 (original): A herbicidal composition which comprises a herbicidally active content of at least one compound of the formula (I) as claimed in claim 1.

Claim 8 (original): A herbicidal composition as claimed in claim 7 in mixture with formulation auxiliaries.

Claims 9-12 (canceled)

Claim 13 (currently amended): A compound of the formula (IIIa)



(IIIa)

in which T is (C_1-C_4)-alkoxy, hydroxyl or halogen ~~and R^1, R^2, R^3, X^1, X^2, C^1, C^2, C^3, L, o, p, q and v have the meanings stated in claim 1, with the exception of compounds in which C^1 are oxiranyl or oxetanyl and the variable terms o and q are both simultaneously zero~~ ;

X^1 is a divalent unit selected from the group consisting of O, $S(O)_n$, NH, $N[L_P$-$R^3]$;

X^2 is a straight-chain or branched (C_1-C_6)-alkylene, (C_2-C_6)-alkenylene or (C_2-C_6)-alkynylene chain which is substituted by w halogen atoms;

$C^1(C^2)_q(C^3)_o$ is a mono-, bi- or tricyclic radical, where

e) the rings C^1, C^2 and C^3 are in each case a 3- to 8-membered, saturated or partially saturated ring selected from the group consisting of cycloalkyl, cycloalkenyl, oxiranyl and oxetanyl,

f) the rings C^1, C^2 and C^3 are in each case linked to each other via one or two joint atoms;

R^1 and R^2 independently of one another are hydrogen, mercapto, nitro, cyano, halogen, thiocyanato, (C_1-C_6)-alkyl-CO-O, (C_1-C_6)-alkyl-$S(O)_n$-O, (C_1-C_6)-alkyl-$S(O)_n$, di-(C_1-C_6)-alkyl-NH-SO_2, (C_1-C_6)-alkyl-SO_2-NH, (C_1-C_6)-alkyl-NH-CO, (C_1-C_6)-alkyl-SO_2-[(C_1-C_6)-alkyl]amino, (C_1-C_6)-alkyl-CO-((C_1-C_6)-alkyl)amino, 1,2,4-triazol-1-yl, (C_1-C_6)-alkyl-O-CH_2, (C_1-C_6)-alkyl-$S(O)_n$-CH_2, (C_1-C_6)-alkyl-NH-CH_2, $[(C_1-C_6)\text{-alkyl}]_2N$-$CH_2$, 1,2,4-triazol-1-yl-$CH_2$, or are (C_1-C_6)-alkyl-$(D)_p$, (C_2-C_6)-alkenyl-$(D)_p$, (C_2-C_6)-alkynyl-$(D)_p$, (C_3-C_9)-cycloalkyl-$(D)_p$, (C_3-C_9)-cycloalkenyl-$(D)_p$, (C_1-C_6)-alkyl-(C_3-C_9)-cycloalkyl-$(D)_p$ or (C_1-C_6)-alkyl-(C_3-C_9)-cycloalkenyl-$(D)_p$, each of which is substituted by v radicals selected from the group consisting of cyano, nitro and halogen;

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R^3 is hydrogen, hydroxyl, halogen, mercapto, amino, nitro, a carbon-containing radical or, if p in X^1 is zero, R^3 is oxo, NR^8, N-OR^8 or N-NR^8R^9;

D is oxygen or sulfur;

L is in each case straight-chain or branched A_p-$[C(R^6)_2]_w$-$[A_p$-$C(R^6)_2]_x$-A_p or A_p-M-A_p with the proviso that 2 or 3 of the variable terms p, w and x shall not simultaneously be zero;

A is a divalent unit selected from the group consisting of O, $S(O)_n$, NH, N-(C_1-C_6)-alkyl, N-(C_2-C_6)-alkenyl and N-(C_2-C_6)-alkynyl;

M is (C_1-C_6)-alkylene, (C_2-C_6)-alkenylene or (C_2-C_6)-alkynylene, each of which is substituted by w radicals R^6;

R^6 is (C_1-C_4)-alkyl, halogen, cyano or nitro;

R^8 is hydrogen, (C_1-C_4)-alkyl, (C_1-C_4)-alkoxy, (C_2-C_4)-alkenyl, (C_2-C_4)-alkynyl, (C_3-C_8)-cycloalkyl, aryl, aryl-(C_1-C_6)-alkyl, heteroaryl, heterocyclyl, halo-(C_1-C_4)-alkyl;

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R^9 is hydrogen, (C_1-C_4)-alkyl, (C_2-C_4)-alkenyl, (C_2-C_4)-alkynyl, (C_3-C_9)-cycloalkyl, aryl, aryl-(C_1-C_6)-alkyl, heteroaryl, heterocyclyl, halo-(C_1-C_4)-alkyl, or, if R^8 and R^9 are bonded to one atom or to two directly adjacent atoms, they together with the atoms to which they are bonded form a saturated, partially or fully unsaturated five- to six-membered ring which contains p hetero atoms selected from the group consisting of oxygen, nitrogen and sulfur;

m and n are each 0, 1 or 2;

o, p and q are each 0 or 1;

w and x are each 0, 1, 2, 3 or 4; and

v is 0, 1, 2 or 3;

with the exception of compounds in which C^1 is oxiranyl or oxetanyl and the variable terms o and q are both simultaneously zero.

Claim 14 (new): A method of controlling undesired plants, which comprises applying an effective amount of at least one compound of the formula (I) as claimed in claim 1 to the undesired plants or to the site of the undesired plant growth.

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Claim 15 (new): The method of claim 14, wherein the undesired plants are in crops of useful plants.

Claim 16 (new): The method of claim 15, wherein the useful plants are transgenic.

Claim 17 (new): A method of controlling undesired plants, which comprises applying an effective amount of a herbicidal composition as claimed in claim 7 or 8 to the undesired plants or to the site of the undesired plant growth.

Claim 18 (new): The method of claim 17, wherein the undesired plants are in crops of useful plants.

Claim 19 (new): The method of claim 18, wherein the useful plants are transgenic.